



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No.: VA0060402
Effective Date: September 25, 2009
Modification Date: May 30, 2013
Expiration Date: September 24, 2014

AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM

AND

THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, and Parts I and II of this permit, as set forth herein.

Owner: Town of McKenney
Facility Name: McKenney Sewage Treatment Plant
County: Dinwiddie
Facility Location: Route 1010 Extension, McKenney, VA

The owner is authorized to discharge to the following receiving stream:

Stream: Great Creek
River Basin: Chowan River & Dismal Swamp
River Subbasin: Chowan River
Section: 2b
Class: III
Special Standards: None


Deputy Regional Director, Piedmont Regional Office

30 May 2013

Date

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from Outfall 001.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITS				MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	WEEKLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
001 Flow (MGD) ^(a)	NL	NA	NA	NL	Continuous	TIRE
002 pH (standard units)	NA	NA	6.0	9.0	1/Day	Grab
003 BOD ₅	25 mg/L	38 mg/L	NA	NA	1/Week	4HC
004 Total Suspended Solids (TSS)	30 mg/L ^(b)	45 mg/L	NA	NA	1/Month	4HC
005 Total Residual Chlorine (TRC) ^(c)	0.0074 mg/L	0.0084 mg/L	NA	NA	3/Day at 4 hour intervals	Grab
007 Dissolved Oxygen	NA	NA	6.6 mg/L	NA	1/Day	Grab
039 Ammonia-Nitrogen (NH ₃ -N)	5.11 mg/L	5.11 mg/L	NA	NA	1/Week	4HC

NL = No Limitation, monitoring only NA = Not Applicable TIRE = Totalizing Indicating and Recording Equipment 4HC = 4-Hour Composite

Notes: (a) The design flow of this treatment facility is 0.10 MGD. See Part I.C.1. for additional flow requirements.

(b) Limit is expressed in two significant figures.

(c) See Part I.B. for additional TRC limitations that apply at the outlet of the chlorine contact tank.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts.
3. Effluent samples shall be collected after post-aeration.
4. At least 85% removal for BOD₅ and TSS must be attained for this effluent.

B. ADDITIONAL CHLORINE LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee shall monitor the Total Residual Chlorine (TRC) at the outlet of each operating chlorine contact tank three times per day at four hour intervals by grab sample.
2. No more than **9** of all samples taken at the outlet of the chlorine contact tank shall be less than **1.0 mg/L** for any one calendar month (DMR parameter 157).
3. No TRC sample collected at the outlet of the chlorine contact tank shall be less than **0.60 mg/L** (DMR parameter 213).
4. If dechlorination facilities exist, the samples above shall be collected prior to dechlorination.
5. If chlorine disinfection is not used, *E.coli* shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
		FREQUENCY	SAMPLE TYPE
<i>E. coli</i>	126 N/100 ml monthly geometric mean	1/Week	Grab (10am to 4pm)

The above *E. coli* requirement, if applicable, shall substitute for the TRC requirements delineated elsewhere in Part I.

C. OTHER REQUIREMENTS OR SPECIAL CONDITIONS

1. 95% Capacity Reopener

A written notice and plan of action for ensuring continued compliance with the terms of this permit shall be submitted to the Department of Environmental Quality's (DEQ) Piedmont Regional Office, when the monthly average flow influent to the sewage treatment plant reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period. **The written notice shall be submitted within 30 days and the plan of action shall be received at the Piedmont Regional Office no later than 90 days from the third consecutive month for which the flow reached 95 percent of the design capacity.** The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of the permit.

2. CTC, CTO Requirement

The permittee shall, in accordance with the DEQ Sewage Collection and Treatment Regulation (9VAC 25-790), obtain a Certificate to Construct (CTC), and a Certificate to Operate (CTO) from the DEQ prior to constructing wastewater treatment works and operating the treatment works, respectively. Non-compliance with the CTC or CTO shall be deemed a violation of the permit.

3. Operation and Maintenance Manual Requirement

The permittee shall review the existing Operations and Maintenance (O&M) Manual and notify the DEQ Piedmont Regional Office in writing, **within 90 days of the effective date of this permit**, whether it is still accurate and complete. If the O&M Manual is no longer accurate and complete, a revised O&M Manual shall be submitted for approval to the DEQ Piedmont Regional Office **within 90 days of the effective date of this permit**. The permittee will maintain an accurate, approved O&M Manual for the treatment works. This manual shall include, but not necessarily be limited to, the following items, as appropriate:

- a. Techniques to be employed in the collection, preservation and analysis of effluent samples (and sludge samples if sludge analyses are required);
- b. Procedures for measuring and recording the duration and volume of treated wastewater discharged;
- c. Discussion of Best Management Practices, if applicable;
- d. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants characterized in Part I.C.6 below that will prevent these materials from reaching State waters;
- e. Treatment works design, treatment works operation, routine preventative maintenance of units within the treatment works, critical spare parts inventory, and record keeping; and
- f. A plan for the management and/or disposal of waste solids and residues.

Any changes in the practices and procedures followed by the permittee **shall be documented and submitted for DEQ staff approval within 90 days of the effective date of the changes**. Upon approval of the submitted manual changes, the revised manual becomes an enforceable part of the permit. Noncompliance with the O&M Manual shall be deemed a violation of the permit.

4. Licensed Operator Requirement

The permittee shall employ or contract at least one Class III licensed wastewater works operator for this facility. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the Department in writing whenever he is not complying, or has grounds for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.

5. Reliability Class

The permitted treatment works shall meet Reliability Class II.

6. Materials Handling/Storage

Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in such a manner so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.

7. Sludge Reopener

The Board may promptly modify or revoke and reissue this permit if any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.

8. Sludge Use and Disposal

The permittee shall conduct all sewage sludge use or disposal activities in accordance with the Sludge Management Plan (SMP) approved with the reissuance of this permit. Any proposed changes in sewage sludge use or disposal practices or procedures followed by the permittee **shall be documented and submitted for DEQ approval 90 days prior to the effective date of the changes**. Upon approval, the revised SMP becomes an enforceable part of the permit. The permit may be modified or alternatively revoked and reissued to incorporate limits or conditions necessitated by substantive changes in sewage sludge use or disposal practices.

9. Compliance Reporting

a. Maximum quantification levels (QL) shall be as follows:

<u>Effluent Characteristic</u>	<u>Quantification Level</u>
Total Suspended Solids	1.0 mg/L
Total Residual Chlorine	0.10 mg/L
BOD ₅	5 mg/L
Ammonia-Nitrogen	0.20 mg/L

b. Reporting

Monthly Average -- Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in a. above shall be determined as follows: All concentration data below the QL listed in a. above shall be treated as zero. All concentration data equal to or above the QL listed in a. above shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the calculated concentration is <QL, then report "<QL" for the quantity. Otherwise use the concentration data and flow data for each sample day to determine the daily quantity and report the average of the calculated daily quantities.

Weekly Average -- Compliance with the weekly average limitations and/or reporting requirements for the parameters listed above shall be determined as follows: All concentration data below the QL listed in a. above shall be treated as zero. All concentration data equal to or above the QL listed in a. above shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each complete calendar week and entirely contained within the reporting month. The maximum value of the weekly averages thus determined shall be reported on the DMR. If all data are below the QL, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the calculated concentration is <QL, then report "<QL" for the quantity. Otherwise use the concentration data and flow data for each sample day to determine the daily quantity and report the average of the calculated daily quantities.

- c. Any single datum required shall be reported as "<QL" if it is less than the QL listed in section a. above. Otherwise the numerical value shall be reported.
- d. **Significant Digits** -- The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used (i.e., 5 always rounding up or to the nearest even number) by the permittee, the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.

10. Total Maximum Daily Load (TMDL) Reopener

This permit shall be modified or alternately revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the facility that are not consistent with the requirements of this permit.

11. Facility Closure Plan

If the permittee plans an expansion or upgrade to replace the existing treatment works, or if the facility is permanently closed, the permittee shall submit to the DEQ Regional Office a closure plan for the existing treatment works. The plan shall address the following information as a minimum: Verification of elimination of sources and/or alternate treatment scheme; treatment, removal and final disposition of residual wastewater and solids; removal/demolition/disposal of structures, equipment, piping and appurtenances; site grading, and erosion and sediment control; restoration of site vegetation; access control; fill materials; and proposed land use (post-closure) of the site. The plan should contain proposed dates for beginning and completion of the work. The plan must be approved by the DEQ prior to implementation.

12. Indirect Dischargers

The permittee shall provide adequate notice to Department of the following:

- a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Section 301 or 306 of the Clean Water Act and the State Water Control Law if it were directly discharging those pollutants; and
- b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of this permit.

Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the treatment works, and (ii) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the treatment works.

13. Significant Discharger Survey

- a. Within 180 days of the effective date of this permit, the permittee shall submit to the DEQ Regional Office a survey of all Industrial Users discharging to the sewage treatment plant. The information shall be submitted on the DEQ Discharger Survey Form, or an equivalent form that includes the quantity and quality of the wastewater. Survey results shall include the identification of significant industrial users of the sewage treatment plant.
- b. If Categorical Industrial User(s) are identified, or if the permittee or DEQ determines that the industrial user(s) have potential to adversely affect the operation of the sewage treatment plant or cause violation(s) of federal, state or local standards or requirements, the permittee shall develop and submit to the DEQ Regional Office, within one year of written notification by DEQ, a pretreatment program for approval. The program shall enable the permittee to control by permit the Significant Industrial Users* discharging wastewater to the treatment works.
- c. Should evaluation by the DEQ of results of the Industrial User survey conducted in accordance with a. above indicate that the permittee is not required to implement a pretreatment program, the requirements for program development described in d. below may be suspended by the DEQ.
- d. The approvable pretreatment program submission shall at a minimum contain the following parts:
 - (1) Legal authority,
 - (2) Program procedures,
 - (3) Funding and resources,
 - (4) Local limits evaluation, and local limits if needed,
 - (5) Enforcement response plan, and
 - (6) List of Significant Industrial Users.
- e. Where the permittee is required to develop a pretreatment program, they shall submit to the DEQ Regional Office an annual report that describes the

permittee's program activities over the previous year. The annual report shall be submitted no later than January 31 of each year and shall include:

- (1) An updated list of the Significant Industrial Users* showing the categorical standards and local limits applicable to each.
 - (2) A summary of the compliance status of each Significant Industrial User with pretreatment standards and permit requirements.
 - (3) A summary of the number and types of Significant Industrial User sampling and inspections performed by the sewage treatment plant.
 - (4) All information concerning any interference, upset, VPDES permit or Water Quality Standards violations directly attributable to Significant Industrial Users and enforcement actions taken to alleviate said events.
 - (5) A description of all enforcement actions taken against Significant Industrial Users over the previous 12 months.
 - (6) A summary of any changes to the submitted pretreatment program that have not been previously reported to the DEQ Regional Office.
 - (7) A summary of the permits issued to Significant Industrial Users since the last annual report.
 - (8) The sewage treatment plant and self-monitoring results for Significant Industrial Users determined to be in significant non-compliance during the reporting period.
 - (9) Results of the sewage treatment plant's influent/effluent/sludge sampling not previously submitted to DEQ.
 - (10) Signature of an authorized representative.
- f. Copies of newspaper publications of all Significant Industrial Users in significant non-compliance during the annual reporting period shall be due no later than March 31 of each year as an addendum to the annual report.
- g. The DEQ may require the sewage treatment plant to institute changes to the legal authority regarding Significant Industrial User permit(s):
- (1) If the legal authority does not meet the requirements of the Clean Water Act, Water Control Law or State regulations;
 - (2) If problems such as interferences, pass-through, violations of water quality standards or sludge contamination develop or continue; or
 - (3) If federal, state or local requirements change.

*A significant industrial user is one that:

- (1) Has a process wastewater (**) flow of 25,000 gallons or more per average workday;
- (2) Contributes a process wastestream which makes up 5-percent or more of the average dry weather hydraulic or organic capacity of the sewage treatment plant;
- (3) Is subject to the categorical pretreatment standards; or
- (4) Has significant impact, either singularly or in combination with other Significant Dischargers, on the treatment works or the quality of its effluent.

**Excludes sanitary, non-contact cooling water and boiler blowdown.